

<p>IN THE UNITED STATES PATENT AND TRADEMARK OFFICE</p> <p>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</p>	APPLICATION	09/879,480
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I. US PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NO. & KIND CODE (if known)	PATENTEE OR APPLICANT NAME	ISSUE/ PUBLICATION DATE	Pages, Columns, Lines Where Relevant Passages Or Relevant Drawings Appear
	3,756,459	Bannister	9/4/1973	
	4,007,087	Ericsson	2/8/1977	
	5,017,497	De Grooth	5/21/1991	
	5,466,572	Sasaki et al.	11/14/1995	
	5,559,032	Pomeroy et al.	9/24/1996	
	5,934,885	Farrell et al.	8/10/1999	
	7,094,527	Seidel et al.	8/22/2006	
	7195920 B2	Seidel et al	3/27/2007	
	7208265 B1	Schenk	4/24/2007	
	7221453 B2	Sharpe et al.	5/22/2007	
	20050011582 A1	Haug	1/20/2005	
	200500282245 A1	Ludwig et al.	12/22/2005	
	20050064383 A1	Bashkin et al.	3/24/2005	
	20050244805 A1	Ludwig et al.	11/3/2005	
	20060118167 A1	Neas et al.	6/8/2006	
	20060263829 A1	Evans et al.	11/15/2006	
	20060281176 A1	Seidel et al.	12/14/2006	
	20070026378 A1	Schenk	2/1/2007	
	20070026379 A1	Seidel et al	2/1/2007	
	20070042342 A1	Seidel et al.	2/22/2007	
	20070092860 A1	Schenk	4/26/2007	
	20070099171A1	Schenk	5/3/2007	
	20070099260 A1	Seidel et al.	5/3/2007	
	20070099260A1	Seidel et al.	5/3/2007	

II. FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL	Foreign Patent Document Country Code, Number, Kind Code (if known)	PATENTEE OR APPLICANT NAME	PUB'N DATE mm- dd-yyyy	TRANSLATION	
				Yes	No
	WO 9317322 A1	Univ. of Hertfordshire GB	9/02/1993		
	UK 1471019	United Aircraft Corp.	4/21/1977		
	WO 2006012597 A2	Monsanto Technology LLC	2/2/2006		
	WO 2002041906 A2	Pharmacia Corp. (c/o Monsanto Company)	11/21/2001		
	WO 2003020877 A2	Pharmacia Corp. (c/o Monsanto Company)	8/15/2002		
	WO 2007/016090 A2	XY, Inc.	2/8/2007		
	EP 0140616	Technicon Instruments Corp.	5/8/1985		
	WO 1991/05236	Aerometrics, Inc.	4/18/1991		
	WO 2006060770A2	XY, Inc.	8/6/2006		
	ZL 03109426.0	Inner Mongolia Mengniu Reproductive Biotechnology Co. Ltd.	12/21/2005		

III. NON-PATENT LITERATURE DOCUMENTS

EXAMINER INITIAL	Document
	Johnson, L. A., Sexing mammalian sperm for production of offspring: the state-of-the-art; <i>Animal Reproduction Science</i> ; 60-61 (2000) pp 93-107
	Seidel, G.E. Jr., et al., Methods of Ovum Recovery and Factors Affecting Fertilization of Superovulated Bovine Ova, <i>Control of Reproduction in the Cow</i> , Sneenan ed., 1978, pp 268-280
	Hawk, H. W. et al., Effect of Unilateral Cornual Insemination upon Fertilization Rate in Superovulating and Single-Ovulating Cattle, <i>Journal of Animal Sciences</i> , 1986 vol. 63, pp 551-560
	Andersson, M. et al., Pregnancy Rates in Lactating Holstein-Greisian Cows after Artificial Insemination with Sexed Sperm. <i>Reprod. Dom. Anim</i> 41, 95-97, 2006
	Morton, K. M., et al., In vitro and in vivo survival of bisected sheep embryos derived from frozen-thawed unsorted, and frozen-thawed sex-sorted and refrozen-thawed ram spermatozoa; <i>Theriogenology</i> , 65 (2006) 1333-1345
	Wilson, R. D., et al., In vitro production of bovine embryos using sex-sorted sperm, <i>Theriogenology</i> , 65 (2006) 1007-1015
	Johnson, L.A., et al, 1996 Gender preselection in mammals. XX Beltsville Symposium in Agricultural Research Technolgy's Role in the Genetic Improvement of Farm Animals. pp. 151-164, Amer. Soc. Anim. Sci. IL, USA.
	Smorag, Z., et al., Cattle Sex Regulation by Separation of X and Y Spermatozoa – Preliminary Results of Field Experiment in Poland, <i>Reproduction, Fertility and Development</i> 17(2) 306–306; 01/01/2005
	Crichton, E., et al. (Abstract) Artificial Insemination of Lactating Holstein Cows with Sexed Sperm, <i>Reproduction, Fertility and Development</i> 18(2) 281 - 281, 12/14/2005
	Lindsey, A.C., et al. Hysteroscopic insemination of low numbers of flow sorted fresh and frozen/thawed stallion spermatozoa, <i>Equine Vet J.</i> 2002 Mar;34(2):106-7.
	Drobnis, E. Z, Cold shock damage is due to lipid phase transitions in cell membranes : a demonstration using sperm as a model, <i>Journal of experimental zoology (J. exp. zool.)</i> 1993, vol. 265, no4, pp. 432-437 (22 ref.)
	Hagele, W.C., et al., Effect of Separating Bull Semen into X and Y Chromosome-bearing Fractions on the Sex Ratio of Resulting Embryos; <i>Cran J. Comp. Med</i> , 1984: 48:294-298
	US Patent Application Number 11/422,735 filed 05/25/2006 entitled Apparatus, Methods and Processes for Sorting Particles and for Providing Sex-Sorted Animal Sperm
	Suh, T.K, et al., Pressure during flow sorting of bull sperm affects post-thaw motility characteristics; <i>Theriogenology</i> Vol. 59, No. 1, January 2003 p 516
	Rath, D, et al., In Vitro Production of Sexed Embryos for Gender Preselection: High-speed sorting of X-Chromosome-Bearing Sperm to Produce Pigs After Embryo Transfer, <i>J. Anim. Sci.</i> 1999, 77:3346-3352
	Auchtung, T.L., et al., Effects of Photoperiod During the Dry Period on Prolactin, Prolactin Receptor, and Milk Production of Dairy Cows; <i>Journal of Dairy Sci.</i> 88: 121-127; <i>American Dairy Sci. Assoc.</i> , 2005.
	Bailey, T. et al., Milk Production Evaluation In First Lactation Heifers; 1999 Virginia Cooperation Extension/Dairy Science Publication 404-285
	Belloin, J.C., Milk and Dairy products: prduction and processing costs Food and Agriculture Organization of United Nations Rome 1988 FAO; web page where found: www.fao.org/docrep/003/x6931e/X6931E00.htm

	Kume, Shin-ichi; Dept of Animal Nutrition National Institute of Animal Industry Tsukuba 305, Japan THE DAIRY INDUSTRY \$IN ASIA B. JAPAN; www.agnet.org/library/article/eb384b.html
	Crichton, E. et al., 347 Artificial Insemination of Lactating Holstein Cows with sexed sperm: Abstract CSORP Publishing - Reproduction, Fertility and Development www.publish.csiro.au/nid/44/paper/RDv18n2Ab347.htm
	Lopez, H. et al., Relationship Between Level of Milk Production and Multiple Ovulation in Lactating Dairy Cows Journal of Dairy Sci. 88:2783-2793; American Dairy Science Association, 2005.
	Managing the Dairy Cow During the Dry Period; Dairy Cattle Production 341-450A; Macdonald Campus of McGill University/Faculty of Agricultural & Environmental Sciences/Department of Animal Science
	Milk Production and Biosynthesis University of Guelph/Dairy Science and Technology (1998) www.foodsci.uoguelph.ca/dairyedu/biosyntheses.html
	Milk Production, Released 7-18-2006, by the National Agricultural Statistics Service (NASS), Agri. Stats. Board, US Dept of Agri.
	De Vries, A. Economic Value of Pregnancy in Dairy Cattle Journal of Dairy Sci. 89:3876-3885/American Dairy Sci. Assoc. 2006
	Garner, D.L. et al., Viability Assessment of Mammalian Sperm Using SYBR-14 and Propidium Iodide, 1996, Biology of Reproduction, Vol.53, pp 276-284
	Salisbury, G.W. et al., Substrate-Free Epididymal-Like Bovine Spermatozoa, J Reprod Fertil, 1963, Vol. 6, pp. 351-359
	Wong, P.Y.D., et al. Potassium Movement During sodium-Induced Motility Initiation in the Rat Caudal Epididymal Spermatozoa; Biology of Reproduction 28, 206-212 (1983)
	Shirai, H., et al. Regulation of Sperm Motility in Starfish; Development, Growth, and Differentiation; 24, (5), 419-428 (1982)
	Padilla, A.W. et al. Extender and Centrifugation Effects on the Motility Patterns of Slow-Cooled Stallion Spermatozoa; J. Anim. Sci 1991, 69:3308-3313
	Ohta H., et al., Acquisition and Loss of Potential for Motility of Spermatozoa of the Japanese Eel <i>Anguilla japonica</i> , National Research Institute of Aquaculture, UNJR Aquaculture; 28th Panel Proceedings (1999)
	Morisawa, M. The Process of the Initiation of Sperm Motility; Laboratory of Physiology, Ocean Research Institute, University of Tokyo (1986)
	McGrady, A.V., et al. Cholinergic Effects on Bull and Chimpanzee Sperm Motility; Biology of Reproduction 15, 248-253 (1976)
	Klinc, P. Dissertation - Improved Fertility of Flowcytometrically Sex Selected Bull Spermatozoa, School of Veterinary Medicine Hanover Germany, 2005
	Jones, J.M. et al Acidification of Intracellular pH in Bovine Spermatozoa Suppresses Motility and Extends Viable Life, Journal of Andrology, Vol. 21, No. 5, September/October 1999, 616-624
	Jenkins, A. D., et al. Concentrations of Seven Elements in the Intraluminal Fluids of the Rat Seminiferous Tubules, Rete Testis, and Epididymis; Biology of Reproduction 23, 981-987 (1980)
	Darszon, A., et al. Ion Channels in Sperm Physiology, Physiological Reviews, Vol. 27, No. 2, April 1999
	Christen, R., et al. Metabolism of Sea Urchin Sperm, the Journal of Biological Chemistry, Vol 25, NO. 9, Issue of May 10, pp.
	Babcock, D. F., et al. Potassium-dependent increases in cytosolic pH stimulate metabolism and motility of mammalian sperm, Proc. Natl. Acad. Sci. USA, Vol. 80, pp. 1327-1331, March 1983

	Zilli, L., et al. Adenosine Triphosphate Concentration and β -D-Glucuronidase Activity as Indicators of Sea Bass Semen Quality; Biology of Reproduction 70,1679-1684 (2004) Published online before print 11 February 2004.
	Hanania, E. G, et al. A novel Automated Method of Scanning Cytometry and Laser-Induced Necrosis Applied to Tumor Cell Purging, Blood. 15 November 1999, Vol. 94, No. 10, suppl 1 part 1
	Purdy, P. H. et al., Effect of Adding Cholesterol to Bull Sperm Membranes on Sperm Capacitation, the Acrosome Reaction, and Fertility, Biology of Reproduction 71, 522-527 (2004)
	Purdy, P. H. et al., Effect of cholesterol-loaded cyclodextrin on the cryosurvival of bull sperm, Cryobiology 48 (2004) 36-45
	Moce E., et al., Cholesterol-loaded cyclodextrins added to fresh bull ejaculates improve sperm cryosurvival, J. Anim. Sci, 2006, 84:826-833
	Ereth, B.A., et al. Integration of Early Weaning and Sexed Semen into a Single-Calf Heifer System to Increase Value of Non-Replacement Heifers; Proceedings, Western Section, American Society of Animal Science, Vol. 51,441-443, June 2000
	Ereth, B.A., et al. Integration of Early Weaning and Sexed Semen into a Single-Calf Heifer System to Increase Value of Non-Replacement Heifers; Abstract Only, Journal of Animal Science, Vol. 78, Supplement 2, 2000
	Bavister, B.D. et al., The effects of Sperm Extracts and Energy Sources on the Motility and Acrosome Reaction of hamster Spermatozoa in vitro; Biology of Reproduction 16, 228-237 (1997)
	Fattouh, El-S.M. et al., Effect of Caffeine on the Post-Thaw Motility of Buffalo Spermatozoa; Theriogenology, July 1991, vol. 36 No. 1
	Koh-ichi Hamano, et al., Gender Preselection in Cattle with Intracytoplasmically injected, flow cytometrically sorted sperm heads, Biology of Reproduction 60, 1194-1197 (1990)
	Hollinshead, F.K. et al., Birth of lambs of pre-determined sex after in vitro production of embryos using frozen-thawed sex-sorted and re-frozen-thawed ram spermatozoa, Reproduction (Cambridge, England) May 2004, Vol. 127, o. 5, pages 557-568
	Nikkei Biotech, Supplement, Latest Information of Biological Instruments and Reagents, 19988, pp. 93-94
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